

would never pay more for anything than what he considered its true value, and he never gave to any object as to which he was not perfectly satisfied. Few men of equal wealth can ever have taken as much pains to dispose of it rightfully, and the extent of his private charities will never be known. Plain-spoken, he was yet considerate for the feelings of others, and would interest himself in their behalf as completely as in his own affairs. So punctual was he in keeping engagements that at a meeting at which he chanced to be two minutes late it was concluded that he had been altogether prevented from attending."

As a botanist he may not have had any wide knowledge of continental forms; but with characteristic modesty he submitted all the discoveries to which his acute powers of observation led him to the judgment of his friends, Mr. Borrer, Mr. Forster, and Professor Babington.

For much that I am here able to say of him I am indebted to his friends, Joshua Clarke, Esq., J.P., F.L.S., R. M. Christy, Esq., and the Rev. W. W. Newbould; but interested as I am in the Essex flora, it gives me much pleasure in being able to add my mite of admiration for one who must undoubtedly take high rank among the pioneers of the modern critical study of British plants.

## NEW CHINESE CYRTANDREÆ.

BY H. F. HANCE, Ph.D., F.L.S. Memb. R. Soc. Ratisbon, &c.

WHEN, in 1861, Mr. Bentham published the 'Flora Hongkongensis,' the *Gesneraceæ*,—all belonging to the tribe *Cyrtandrea*,—known from the vast empire of China, were but three in number; *Æschynanthus acuminata* Wall., *Chirita sinensis* Lindl., both from the extreme south, and *Bœa hygrometrica* R. Br., from the Peking mountains. Five years later, the present writer was enabled\* to add four species to these, *Didymocarpus oreocharis* (now *Oreocharis Benthami* C. B. Clarke), *Chirita anachoreta*, *Chirita? macrosiphon*, a somewhat doubtful plant as to position, all from the province of Kwang-tung, and *Bœa Swinhoii*, a Formosan undershrub; and again, seven years subsequently, he recorded† the existence in the mountains of northern China of a plant which he supposed to be identical with the North-west Indian *Didymocarpus lanuginosa* Wall., but which Mr. Bentham has since referred to *Oreocharis*. In 1872 M. Maximowicz reviewed the Japanese and Chinese *Cyrtandrea*‡, falling into the same error with the writer as to the identity of the North Chinese plant with the Kashmir species (and, indeed, they are outwardly indistinguishable); but he only added one to the Chinese list, *Isanthera discolor*, gathered by Oldham in Formosa.

\* Ann. Sc. Nat., 5e sér., v. 230.

† Journ. Linn. Soc. xiii. 85.

‡ Mel. Biolog. Acad. St. Pétersb. ix. 368.

Finally, in 1875, Mr. S. Le Marchant Moore recorded the Japanese *Lysionotus pauciflorus* Maxim. from Kiu-kiang, and described a new plant from the same locality, under the name of *Didymocarpus Auricula*\*,—but which Mr. Clarke informs the writer is either referable to *Oreocharis*, or perhaps *sui generis*,—thus bringing up the Chinese numbers of the order to eleven.

The exploration by the Rev. B. C. Henry, one of the most assiduous and successful investigators of the Kwang-tung flora, of the lovely and romantic regions of the Lien-chau River, has now brought to light eight other species, of which diagnoses are subjoined, a few of them unfortunately drawn up from incomplete specimens. Mr. Clarke also reports an undescribed *Chirita*, collected by the late Mr. Swinhoe at Amoy, so that, within a period of twenty years, the number of Chinese *Cyrtandrea* known has been increased more than six-fold. The occurrence of eight new species of one group, all collected by a single person, within a limited region, shows the extraordinary richness of the flora, and the great amount of interesting novelties still awaiting discovery, as the area of exploration is enlarged.

In concluding these brief remarks, the writer desires to record his opinion that *Cyrtandrea* have at least as good (or as little) a claim to separation from *Gesneræ* as *Vacciniacæ* have from *Ericacæ*; and that he thinks the *Cyrtandrea* genera require subdivision, if they are to be—as they should—considered equivalent to those of the American sub-order. They do not seem to have been quite satisfactorily dealt with in the 'Genera.'

1873 1. *Oreocharis* ? *filipes*, sp. nov. — Radice tenui lignosa descendente, foliis radicalibus oblongo-obovatis integerrimis utrinque obtusis supra vivide viridibus tomento derasili floccoso primum tectis demum glabratis subtus densissime fulventi-pannosis venis utrinque omnino inconspicuis subpollicaribus 3 lin. latis petiolo pannoso 3-lineali, scapis filiformibus tenuissimis glaberrimis arcuato-recurvis circ. 2 poll. longis apice umbellatim trifloris, calycis 5-partiti laciniis angustis acutis, corolla ?, capsula lanceolata acuminata glaberrima 3 lin. tantum longa.

Sub rupibus impendentibus, ad angustias Yeung-tin, fluvii Lien-chau, 290 m. p. a Cantone, d. 12 Oct. 1881, coll. rev. B. C. Henry. (Herb. propr. n. 22137.)

Although there is but a single calyx without corolla, and a capsule on all the specimens gathered, so that I have been unable to examine the floral structure, yet the habit of this pretty little plant makes me feel almost sure that it is referable to *Oreocharis*.

2206 2. *Didymocarpus* (ORTHOBCÆ ?) *demissa*, sp. nov.—Caudice brevi crassiusculo, foliis radicalibus elliptico-oblongis integerrimis acutis utrinque dense hirsutis 2-pollicaribus in petiolum pollicarem sensim angustatis, scapis foliis superatis pilis septatis villosis apice 3-5-floris, pedicellis 2 lin. longis, calycis 2½ linealis 5-partiti laciniis lineari-subulatis villosis, corollæ albidæ e tubo gracilescenti superne modice ampliatae extus tomentosæ pollicaris lobis oblongis

\* Journ. Bot. 1875, pp. 229, 231.

obtusis ciliatis, genitalibus faucem attingentibus, staminibus 2, ovario lineari tomentoso stylo tomentello eo duplo longiore coronato, stigmatibus cupulato.

In rupibus juxta Sai-ngau, ad fluvium Lien-chau, 210 m. p. a metropoli australi, d. 5 Oct. 1881, detexit rev. B. C. Henry. (Herb. propr. n. 22142.)

A pretty, delicate little plant, quite distinct from any known to me, of which I must add that my diagnosis is drawn up from a solitary specimen, with only two flowers, from one of which the corolla has fallen.

**Petrocodon**, genus novum.

Calyx 5-partitus, segmentis lineari-subulatis. Corollæ urceolato-campanulatæ lobis 5, triangularibus, acutis, erectis. Stamina 2, juxta imam corollam inserta, faucem vix attingentia; antheræ liberæ, breviter oblongæ, loculis parallelis apice confluentibus. Staminodia nulla. Ovarium liberum, oblongum, biloculare, placentis bilobis, stylo ovario æquilongo, stigmatibus punctiformi. Capsula linearis, bivalvis, valvis utrinque solutis medio placentiferis. Semina minuta, fusiformia, subtiliter tuberculata, utrinque breviter appendiculata. Herba acaulis. Folia radicalia, petiolata. Scapi laxè cymiferi, multiflori.

*Didymocarpo*, ut videtur, proximus; ast, corollæ forma, genericam dignitatem omni jure postulat.

2207 3. **P. dealbatus**.—Radice crassiuscule-fibrosa, foliis in sicco coriaceis oblongis acutis basi cuneatis margine leviter undulatis penninerviis costa nervisque subtus paulo prominulis 3–6 poll. longis 1–2 poll. latis petiolo 1–2-pollicari supra glabratis subtus præcipue secus costam petioloque passim pilis quasi induratis concretisque albo-furfuraceis, scapis folia parum superantibus albido-hirtis, floribus viridulo-albis, pedicellis 3–4 lin. longis hirtis, bracteis bracteolisque linearibus hirtis, calycis segmentis hirtellis lineam longis, corolla 3 lin. longa, capsula pollicari glaberrima stylo brevi coronata.

Juxta Tsing-lin, secus fl. Lien-chau, 230 m. p. a Cantone, d. 8 Oct. 1881, e rupibus decerpit rev. B. C. Henry. (Herb. propr. no. 22123.)

2208 4. **Æschynanthus** (HAPLOTRICHUM) **apicidens**, sp. nov.—Caule crassiusculo angulato cortice cinereo suberoso glaberrimo tecto scandente ramos angulatos glaberrimos edente, foliis glaberrimis siccitate rigidis oblongis utrinque obtusiusculis apicem versus utrinque 1–2-dentatis costa supra impressa subtus elevata penninerviis nervis subtus tantum ibique obscure perspiciendis 1½–2 poll. longis 5–7 lin. latis petiolo 2-lineali supra hispido, floribus ad apices ramorum sæpe sursum trichotomorum 2–3 fasciculatis pedicellis gracilibus 1–1½-pollicaribus fultis, corolla ... ?, capsula gracili minute pustulata 2½–3½ poll. longa calyce 5-fida 1½-lineali laciniis lanceolatis apice ciliatis cincta, seminibus (inclusis pilis) circ. lineam longis cinnamomeis levibus.

In monticulo umbrato juxta pagum Tai-ping, 309 m. p. a Cantone, secus fl. Lien-chau, supra rupes strato humi parco tectas copiose scandentem, d. 19 Oct. 1881, detexit rev. B. C. Henry. (Herb. propr. no. 22056.)

2088 5. *Chirita eburnea*, sp. nov.—Caudice abbreviato lignoso 1 poll. diametro rosulas foliorum ex apice lateribusque emittente, foliis confertis crasse carnosis ovalibus integerrimis acutis supra læte viridibus pubentibus subtus dense appresse tomentosus pilis omnibus septatis nervis crassiusculis supra impressis subtus paulo prominulis ad 6 poll. longis 3 poll. latis petiolis brevibus supra planis subtus convexiusculis basi connatis 9 lin. latis, pedunculis axillaribus solitariis scapiformibus pubentibus folio paulo brevioribus vel eo triplo longioribus, cymulis 10–25 floris basi bracteis 2 ovatis acutis tomentosus basi connatis fultis, floribus cernuis in exemplaribus paucifloris 2 centralibus pedicellis pollicaribus suffultis ebracteolatis e lateralibus centrali pedicellato ebracteolato reliquis subsessilibus singulo bracteola lanceolata tomentosa stipato, calycis ad basin fissi cum pedicellis pilis septatis setaceo-acuminatis purpureis aliisque flavo-capitatis obsiti laciniis lineari-lanceolatis 7 lin. longis, corollæ extus breviter rubello-glandulosæ intus glabræ sensim ampliatae sesquipollicaris eburneæ intus lineis paucis pallide rubellis pictæ maculaque glandulosa aurantiaca ad lobos 2 superiores notatæ lobis oblongis obtusis, staminum faucem attingentium filamentis albis glandulosis antheris flavidis dense barbatis coherentibus, staminodiis filamentis duplo brevioribus paulo recurvis glandulosis, disco cupuliformi, stylo exserto apice deflexo cum ovario tomentoso et glanduloso, stigmatate bilamellato, capsula compressa bipollicari.

Juxta Sai-ngau, secus fl. Lien-chau, provinciæ Cantonensis, d. 5 Oct. 1881, invenit rev. B. C. Henry. (Herb. propr. no. 22129.)

Of this beautiful species a plant dug up and potted by Mr. Henry flowered with me at the end of August, 1882, and I have carefully drawn up the above character from it, as well as from the dried wild specimens, which have much longer many-flowered peduncles.

It is well distinguished by its stout columnar stem, only  $2\frac{1}{2}$  inches high in the living specimen now before me, which sends out leaf-shoots just in the manner of *Cycas revoluta* Thunb. It is, I think, most nearly allied to *C. sinensis* Lindl.

2102 6. *Chirita Juliæ*, sp. nov.—Acaulis, foliis crassiusculis molliter velutinis ovalibus irregulariter grosse dentatis penninerviis nervis supra impressis subtus fortiter prominulis circ.  $2\frac{3}{4}$  poll. longis 2 poll. fere latis petiolo semipollicari dense tomentoso supra plano subtus convexo, floribus plerumque binis pedunculo communi semipollicari pedicellisque 3-linealibus hirsutis fultis, bracteolis binis lineari-subulatis hirsutis, calycis ad basin usque fissi laciniis lineari-subulatis hirsutis 5–6 lin. longis, corollæ extus tomentellæ intus parce glandulosæ sensim ampliatae tubo extus albido intus cæruleo-venoso lobis obtusis violascenti-cæruleis macula citrina inter duos superiores notatis, genitalibus faucem attingentibus staminibus medio tubo insertis filamentis parce glandulosis antheris albidis breviter barbatis, staminodiis brevibus recurvis, ovario styloque tomentosus stigmatate bilamellato.

Secus fl. Lien-chau, prov. Cantonensis, m. Octobri 1881, sterilem detexit rev. B. C. Henry. (Herb. propr. no. 22077.)

A remarkably pretty species, the flower a good deal like *Barleria*

*cristata* in colour and marking. A transplanted specimen flowered with me in June, 1882, and from this I have drawn up my character. I have named it after Mr. Henry's eldest daughter, a sweet little girl, and the frequent companion and assistant in his fruitful botanical explorations.

2209 7. **Bœa dictyoneura**, sp. nov.—Caudice brevi robusto, foliis approximatis coriaceis oblongis acutis basi attenuatis margine irregulariter denticulatis supra oliveceo-viridibus nervis inconspicuis arachnoideo-floccosis demum glabratis subtus fulventi-pannosis nervis venisque reticulatis conspicue elevatis 5–7 poll. longis ad 2 poll. latis, pedunculis folio paulo brevioribus dense fulventi-floccosis, cymis condensatis multifloris, bracteis oblongis fulvo-floccosis, calycis 5-partiti segmentis linearibus obtusis dense floccosis 2 lin. longis, corolla 3 lin. longa 5-loba, staminum brevium filamentis incurvis crassiusculis antherarum loculis divergentibus apice confluentibus, ovario oblongo glaberrimo, stylo brevi, stigmate punctiformi, capsula 8 lin. longa.

Secus fl. Lien-chau, prov. Cantonensis, m. Maio 1881, leg. rev. B. C. Henry. (Herb. propr. no. 21741.)

This fine species, of which my specimens are not in fully developed flower, appears closely allied to *B. flocculosa* C. B. Clarke.\* It lived with me for many months, but died without blossoming, being attacked by a species of *Coccus*.

#### **Primulina**, genus novum.

Calyx lageniformis, ultra medium 5-fidus, segmentis lanceolatis. Corollæ hypocraterimorphæ tubus cylindræus, lobis 5, oblongis, paulo inæqualibus, patentibus. Stamina 2, imo tubo inserta; filamentis brevibus; antheræ liberæ, loculis divaricatis. Staminodia nulla. Discus nullus. Ovarium liberum, breve, oblongum, biloculare, placentis bilobis; stylas vix ovario longior, stigmate bilamellato. Herba acaulis. Folia radicalia, petiolata. Scapi apice umbellatim 3–5 flori.

Genus, habitu floribusque *Primulam* mire simulans, a *Didymocarpo*, *Oreocharide* et *Chirita*, corollæ forma facile distinctum.

2210 8. **P. Tabacum**.—Radice fibrosa, foliis carnosulis orbiculari-oblongis obtusis margine lobulatis basi leviter cordatis pilosis subtus glandulosis nervis supra impressis subtus fortiter elevatis 2–2½ poll. longis petiolo crasso supra plano subtus convexo apice v. per totam longitudinem marginato 2½–3½ poll. longo fultis, scapis petiolo circ. æquilongis pilosulis ac glandulosis 3–5 floris post anthesin arcte recurvis, floribus breviter pedicellatis bracteis binis linearibus glandulosis 3 lin. longis fultis, calycis nigroglandulosi 4 lin. longi segmentis glanduloso-denticulatis, corollæ tubo extus albo-purpurascete pilosulo et glanduloso intus glanduloso-piloso 6 lin. longo lobis oblongis obtusis ciliatis apicem versus denticulatis pulchre purpureis medioque stria longitudinali saturatiore pictis 4 lin. longis, filamentis antheris circ. æquilongis.

Ad angustias Tai-li, secus fl. Lien-chau, 270 m. p. a Cantone, d. 10 Oct. 1881, leg. rev. B. C. Henry. (Herb. propr. no. 22094.)

\* Commelyn. et Cyrtandr. Bengal. t. 83.

This pretty little plant is very delicate, and exceedingly troublesome to rear in cultivation. I have only had a single flower to examine. It is so wonderfully like a *Primula*, even when in blossom, that it was only dissection which showed me it was a *Gesneracea*. Mr. Henry says that, when alive, the glandular pubescence exhales a powerful odour of tobacco, which it communicates to the hands of anyone touching it, and that it is universally known to the natives by the name of *Shek-in*, that is 'Rock Tobacco.'

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ON THE FLORA OF INNISHOWEN, CO. DONEGAL.

BY H. C. HART, B.A.

(Continued from p. 152).

\**Acer Pseudo-platanus* Huds.—Grows naturally on the walls of Derry, Dr. Moore, Ord. Sur. Rept.

*Geranium dissectum* L. *G. Robertianum* L. *G. molle* L.

*Erodium cicutarium* Sm.

*Linum catharticum* L.—Abundant.

*Radiola Millegrana* Sm.—Near the Signal tower, Malin Head, where it was noticed by my brother, G. V. Hart; also a little east from Ardmalin cottage.

*Ulex europæus* L.

[*U. Gallii* Planch.—The Dwarf Furze does not occur in Innishowen, and I am a little doubtful about its being a Donegal plant. Stunted *U. europæus* may have been mistaken for it; it is, at any rate, very rare.]

*Sarothamnus scoparius* Koch.

*Ononis arvensis* L.—Buncrana, W. E. H. I could not find it there in Sept. 1882. This plant is recorded, without locality, from Donegal in the 'Cybele Hibernica.' I have never been able to meet with it.

*Medicago lupulina* L.—Rather scarce.

*Anthyllis Vulneraria* L. Common.

†*Trifolium pratense* L.—Common.

*T. repens* L.—Common. The native situation of these two clovers appears to me very distinct in Ireland. The present species thrives in damp or even very wet ground, either by the sea or to a considerable height on mountains, while *T. pratense* always looks most at home on dry banks and bluffs by the seaside. Red clover is more doubtfully native in the north west than the Shamrock. *T. repens* is commonly pink in salt marshes, where it resembles *T. fragiferum*. Some botanists believe neither species indigenous to Ireland.

*T. medium* L.—Local, but quite a characteristic plant in Innishowen, where I have observed it in the following localities:—between Kilderry and Slieve Snacht; Dunaff Head; Leenane; sandy ground at Ardmalin South, on the west side of Malin Head; at Knockglass, west of Malin, and at Goorey, by the school-house. I have found it also in Northern Donegal at Aranmore.